

REMARKS

Claims 1 and 3-14 are pending in this Application. Claim 2 has been previously canceled without prejudice. Applicants introduce herewith amendments to Claims 1 and 3-14 as to matters of form or to claim what is believed to be patentable subject matter. Claims 15 to 20 are newly added and find support throughout the specification. For example, support for Claim 15 may be found at paragraphs [0017]-[0019], [0031]-[0035], Example 1, Example 2, Example 3, and Example 4. Support for Claim 16 may be found, e.g., at paragraph [0017]-[0018]. Support for Claim 17 may be found, e.g., at paragraphs [0022] and [0066]-[0071] and Examples 1-4. Support for Claim 18 may be found, e.g., at paragraph [0018]. Support for Claims 19 and 20 may be found, e.g., at paragraph [0036].

In the Office Action mailed July 12, 2006, the Examiner

- rejected Claims 1 and 3-14 under 35 U.S.C. § 102(b) as anticipated by or, in alternative, under 35 U.S.C. § 103(a) as obvious over Groppo Jr. et al. (U.S. Patent No. 5,817,230; herein "Groppo") or Sakai et al. (U.S. Patent No. 4,933,013; herein "Sakai"));
- rejected Claims 1 and 3-14 have also been rejected under 35 U.S.C. § 103(a) as being obvious over Groppo or Sakai in view of McOnie et al. (U.S. Patent No. 5,562,832; herein "McOnie"), Blankenburg et al. (abstract; herein "Blankenburg")) and Otte-Witte (abstract; herein "Otte");
- objected to the original specification;

- rejected Claims 1 and 3-14 under 35 U.S.C. § 112, first paragraph and 35 U.S.C. § 132;
- rejected Claims 1 and 3-14 under the first paragraph of 35 U.S.C. § 112, second paragraph

Applicant respectfully address the Examiner's rejections and objection below.

***Claims Rejection - 35 U.S.C. § 102(b)/35 U.S.C. § 103(a)***

On page 2 of the Office Action, the Examiner rejected Claims 1 and 3-14 as being anticipated by or, in the alternative, obvious over Groppo or Sakai. Applicants respectfully submit amended Claim 1, amended to include "wherein said dewatering aid is fly ash particles having two components with a first larger size of particles of about a 100 micron maximum size in an amount of about 10 to 60 wt% of the cementitious slurry based on total dry ingredients, and a smaller size of particles of about a 10 micron maximum size in an amount of about 5 to 30 wt.% of the cementitious slurry based on total dry ingredients." Support for amended Claim 1 may be found throughout the originally-filed specification, at e.g., paragraphs [0017]-[0018], [0032]-[0035], and Examples 1 to 4.

Applicants further submit that amended Claim 1 and its dependents are not anticipated by or obvious over Groppo alone or in combination with McOnie Blankenburg, and Otte. Applicants respectfully point out that Groppo does not teach a dewatering aid "to maintain porosity in the slurry and the product to be coated during dewatering" or a dewatering aid of "fly ash particles having two components with a first larger size of

particles of about a 100 micron maximum size in an amount of about 10 to 60 wt% of the cementitious slurry based on total dry ingredients, and a smaller size of particles of about a 10 micron maximum size in an amount of about 5 to 30 wt.% of the cementitious slurry based on total dry ingredients reference" as claimed in Applicants' claim 1. Instead, Groppo teaches fly ash as a pozzolan that "shrinks pores" in concrete (Col. 1, ll. 41-45). As such, Groppo's disclosure does not teach a dewatering aid "to maintain porosity in the slurry and the product to be coated during dewatering." More importantly, Groppo does not teach each and every element of Applicants' claimed invention as is required to anticipate Applicants' claims. For example, Groppo also does not teach fly ash of two components for dewatering a product or that their fly ash is in a cementitious slurry or that their fly ash is to maintain porosity in the slurry. Groppo merely teaches a method to remove coarse fly ash particles greater than 75 microns from class F fly ash and to prepare them in a slurry with water at a weight ratio of 5 to 30 which are then further processed to classify their size according to US Patent No. 4,961,843 (which is yet another method merely for hydraulically classifying particles; see Col. 3 ll. 61 to Col. 4 ll. 6 of Groppo). Applicants' respectfully request the Examiner point to each and every element of Applicants' claimed invention to show that Groppo actually anticipates Applicants' claims. Applicants further submit that because Groppo teaches nothing close to that of Applicants' claimed invention and actually teaches from Applicants' invention by providing that their fly ash is to shrink pores, Groppo cannot be used for a showing of obviousness. For a

showing of obviousness, Groppo must, as a whole, teach Applicants' claimed invention, which it does not as pointed out above, because Groppo does not teach essential elements of Applicants' claimed invention. For a showing of obviousness, Groppo must also have some suggestion or motivation to be modified or be combined with McOnie, Blankenburg, or Otte to provide Applicants' claimed invention. There is clearly no suggestion or motivation in Groppo, itself to be modified to provide a dewatering aid or a dewatering aid for dewatering a cementitious slurry coating on a product, or a dewatering aid with particulate material in an effective quantity and particle size to maintain porosity in the slurry and the product to be coated or a dewatering aid to permit dewatering of the slurry through the product to be coated for the reasons pointed to above. Were one of ordinary skill to combine Groppo with McOnie, Blankenburg, and Otte, the combination would still not teach or suggest all the claim limitations of Applicants' claimed invention, which is another requirement for a showing of obviousness. McOnie, Blankenburg, and Otte are teachings of fly ash in cement or sludge, which is a muddy deposit or mass from water and sewage or, as in McOnie, from papermaking. Neither McOnie, Blankenburg, and Otte teach the deficiencies not taught by Groppo. Accordingly, Groppo is not obvious over Applicants' claimed invention nor, when combined, does Groppo with McOnie, Blankenburg, and Otte teach or suggest all the claim limitations of Applicants' claimed invention. Finally, there is no reasonable expectation of success in Groppo either alone or in combination with McOnie, Blankenburg, and Otte. Hence, since alone or combined with others, such as McOnie, Blankenburg, and

Otte, Groppo does not teach or suggest all the claim limitations of Applicants' claimed invention, Groppo is not obvious over Applicants' claimed invention. Applicants respectfully request the rejection over Groppo be removed.

With respect to Sakai, Applicants submit that amended Claim 1 and its dependents are not anticipated by or obvious over Sakai alone or in combination with McOnie Blankenburg, and Otte. Applicants respectfully point out that Sakai does not teach a dewatering aid "to maintain porosity in the slurry and the product to be coated during dewatering" or a dewatering aid of "fly ash particles having two components with a first larger size of particles of about a 100 micron maximum size in an amount of about 10 to 60 wt% of the cementitious slurry based on total dry ingredients, and a smaller size of particles of about a 10 micron maximum size in an amount of about 5 to 30 wt.% of the cementitious slurry based on total dry ingredients reference" as claimed in Applicants' claim 1. Instead, Sakai teaches a hydraulic material having high strength and does not teach that the dewatering aid maintains porosity in the slurry and the product to be coated during dewatering, nor that the dewatering aid permits dewatering of the slurry through the product to be coated. Furthermore, as described above Sakai does not teach each and every element of Applicants' claimed invention as is required to anticipate Applicants' claims. Sakai does not teach fly ash of two components for dewatering a product or that their fly ash is in a cementitious slurry or that their fly ash is to maintain porosity in the slurry. Sakai teaches a hydraulic material. The hydraulic material requires a water-reducing agent that is added "in a large quantity" and is

to reduce "air entrapment" or porosity of the material (Col. 6, ll. 18-23). The hydraulic material of Sakai is also specifically made of a hydraulic material containing an aluminate phase (Col. 2, ll. 15, Claims) that is combined with a mineral material (mineral materials of  $\text{Ca}_3\text{SiO}_5$  or solid solutions of  $\text{Ca}_3\text{SiO}_5$  [Col. 2, ll. 51-55]) or a material having hydraulic activity (blast furnace slag, fly ash and mixtures thereof [Col. 3, ll. 448-50]) that have only a little aluminate. In fact, Sakai stipulates, "To satisfy this essential condition or feature, when the hydraulic material used in the composition is a material containing a large amount of aluminate phase, for example, normal Portland cement, high early strength Portland cement or moderate heat Portland cement, it should be combined with the mineral material or the material having hydraulic activity, both containing no aluminate phase or a material having only a little aluminate phase, for example, white Portland cement, sulfate resisting Portland cement, oil well cements or blended cements so that the content of aluminate phase in the final composition is not more than 16.5 wt%" (emphasis added; col. 4, ll. 37-48). Accordingly, in Sakai there cannot be two components of fly ash particles since fly ash has a large amount of aluminate. Nor can fly ash be added in a quantity to maintain porosity in the slurry because Sakai teaches against this and further adds a water-reducing agent to reduce porosity. Thus, because Sakai does not teach and every element of Applicants' claimed invention, Sakai does not anticipate Applicants' claims. Applicants further submit that because Sakai teaches away from elements of Applicants' claimed invention, Sakai cannot be used for a showing of obviousness.

For a showing of obviousness, Sakai must, as a whole, teach Applicants' claimed invention, which it does not (as pointed out above because Sakai does not teach essential elements of Applicants' claimed invention). For a showing of obviousness, Sakai must also have some suggestion or motivation to be modified or be combined with McOnie, Blankenburg, or Otte to provide Applicants' claimed invention. There is clearly no suggestion or motivation in Sakai, itself to be modified to provide two components of fly ash since it teaches away from having two components and it also teaches away from fly ash being added in a quantity to maintain porosity of the slurry and nowhere does Sakai teach that fly ash permits dewatering of the slurry through the product to be coated for the reasons pointed to above. Sakai makes no mention whatever of a slurry. There is also no reason for one of ordinary skill to combine Sakai with any other reference teaching, such as McOnie, Blankenburg, and Otte, because by teaching away from essential elements of Applicants' invention, Sakai has essentially provided an entirely different invention that one of ordinary skill would never turn for a suggestion of how to make Applicants' invention. Further neither McOnie, Blankenburg, and Otte teach any of the deficiencies found in Sakai and, together, Sakai with either McOnie, Blankenburg, or Otte still do not teach or suggest all the claim limitations of Applicants' claimed invention, which is required for a showing of obviousness. As such, there is also no reasonable expectation of success in Sakai either alone or in combination with McOnie, Blankenburg, and Otte, which is also required for a showing of obviousness. The Examiner is requested to point to each of the specific

teachings of Applicants claimed invention in the cited references, not only in generalities, should they exist. For the reasons set forth above, Sakai is not obvious over Applicants' claimed invention nor, when combined, does Sakai with McOnie, Blankenburg, and Otte teach or suggest all the claim limitations of Applicants' claimed invention. Applicants respectfully request the rejection over Sakai be removed.

***Objection to Specification***

The Examiner reiterated his objected made on page 6 of the Office Action mailed December 2, 2005, in which there was objection to Examples 1 through 4 under 35 U.S.C. § 112, first paragraph, for not clearly enabling one to make or practice the invention. Applicants respectfully reiterate previous statements and, again, point out that the Examiner has not provided a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure. Applicants also point out that amended Claim 1 is drawn to "a larger size" fly ash and "a smaller size" fly ash as are provided in Examples 1-4. Applicants have further described the "larger" and "smaller" size portions with enough detail in the specification (see para. [0030]-[0036] and in a sufficient manner and process of making and using that correspond in scope to those used in describing and defining the subject matter sought to be patented. Accordingly, Applicants submit that Examples 1-4 are in compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph and respectfully request the objection be removed.



**Claims Rejection - 35 U.S.C. § 112, first paragraph/  
35 U.S.C. § 132**

On page 3 of the Office Action, the Examiner rejected Claims 1 and 3-14 for not providing support for the invention now claimed. Applicants respectfully submit that amended Claim 1 is adequately supported by the specification as originally filed, see, e.g., para. [0030]-[0035] and Examples 1-4. For example, amended Claim 1 is drawn to "a larger size" fly ash and "a smaller size" fly ash as provided in para. [0032]-[0035] and Examples 1-4. Applicants further disagree with the characterization the Examiner has made of Applicants' statements. Applicants submit that Applicants have the right to claim ranges within the claimed range of the originally filed specification. In the specification, fly ash is said to be "from about 1 to 100 microns" (para. [0032]). Applicants in amended Claim 1 further define two components of fly ash as being a "larger component" and a "smaller component" and with sufficient description of what those components include. Thus, Applicants, have sufficiently met the reasonableness test, that the two components are within the specified fly ash range of the originally filed specification and are further defined as two separate components, one "larger" and one "smaller." The Examiner cannot read more into the specification or claims than there is stated to be. The originally filed specification says there are two components, one larger and the other smaller, the smaller one is further said to be less than 10 microns. How then can the Examiner interpret the claims to mean any different. Applicants submit that amended Claim 1 overcomes the

rejection under 35 U.S.C. § 112, first paragraph and the rejection under 35 U.S.C. § 132.

***Claims Rejection - 35 U.S.C. § 112, second paragraph***

On page 3 of the Office Action, the Examiner rejected Claims 1 and 3-14 for not setting forth subject matter regarded as the invention. Applicants reiterate as previously pointed out that amended Claim 1 provides a definite distinction in that there are two components or portions of fly ash, one "larger" and one "smaller." As such, two is not one and, therefore, the components must be distinct from each other. The Examples provided additional support that two components have been sued in a cementitious slurry as described in the claims. Accordingly, amended Claim 1 is believed to properly set forth subject matter regarded as the invention. Applicants respectfully submit that amended Claim 1 overcomes the rejection under 35 U.S.C. § 112, second paragraph.

With regard to new Claims 15 to 20, such claims are believed to have adequate support in the specification, claim subject matter of the subject invention, and are not anticipated or obvious over the cited references. For example, neither Groppo nor Sakai teach anything about a dewatering aid or a dewatering aid comprising particulate material in an effective quantity and particle size to maintain porosity in a cementitious slurry and a product to be coated during dewatering or that the dewatering aid permits dewatering of the slurry through the product to be coated, or that the dewatering aid comprises about 25-60 wt % silica, about 10-30 wt %  $\text{Al}_2\text{O}_3$ , about 5-25 wt %  $\text{Fe}_2\text{O}_3$ , about 0-20 wt %  $\text{CaO}$ , about 0-5 wt %  $\text{MgO}$  or that

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the particulate material has two portions, a larger portion and a smaller portion of particles at different wt% or wherein the cementitious slurry with the dewatering aid is more than 25% water and up to 50% water. Accordingly, Applicants submit that all claims are in allowable form and respectfully request they be allowed.

**CONCLUSION**

Applicant respectfully submits that the Application is in condition for allowance and earnestly seeks such allowance of Claims 1, 3-14, and new Claims 15-20. Should the Examiner have questions, comments, or suggestions in furtherance of the prosecution of this Application, please contact Applicants' representative at 214.999.4330. Applicants, through their representative, stand ready to conduct a telephone interview with the Examiner to review this Application if the Examiner believes that such an interview would assist in the advancement of this Application.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including, without limitation, any fees under 37 C.F.R. § 1.16 or 37 C.F.R. § 1.17, to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP and reference Attorney Docket No. 131279-1020. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. § 1.136 or any other section or provision of Title 37. Applicant respectfully requests that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.

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This is intended to be a complete response to the Office  
Action mailed July 12, 2006.

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Respectfully submitted,



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